

CLAIMS:

What is claimed is:

1. A semiconductor structure comprising:
 - a first silicide layer;
 - a silicon dioxide layer on and in contact with the first silicide layer;
 - a first lightly doped semiconductor layer on and in contact with the silicon dioxide layer; and
 - a second heavily doped semiconductor layer on and in contact with the lightly doped semiconductor layer.
2. The semiconductor structure of claim 1 wherein the first silicide layer comprises cobalt silicide.
3. The semiconductor structure of claim 1 wherein the silicon dioxide layer is an antifuse layer.
4. The semiconductor structure of claim 3 wherein the antifuse layer is capable of being breached.
5. The semiconductor structure of claim 4 wherein a diode is formed after the antifuse layer is breached.
6. The semiconductor structure of claim 5 wherein the diode is a Schottky diode.
7. The semiconductor structure of claim 1 wherein the structure is a portion of a first memory level.

8. The semiconductor structure of claim 7 wherein at least a second memory level exists above the first memory level.
9. The semiconductor structure of claim 8 wherein at least a second memory level exists below the first memory level.